

In the Claims:

Please amend as follows:

~~Step 1~~

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--6. (Amended) A hand-held tool for shearing [cutting] a body having a non-circular cross-section by the application of torsional force comprising an upper shearing element and a lower shearing element, each of said shearing elements having an upper side and a lower side, said upper shearing element having opposing cutting edges at its lower side and said lower shearing element having opposing cutting edges at its upper side, said edges at the lower side of said upper shearing element (directly touching) ^{in contact} said edges at the upper side of said lower shearing element, [cutting edges, said edges directly touching one another] and said tool further comprising means for rotating said elements counter to one another (about the axis of the body) to apply a torsional shearing force on the body in a plane transverse to the longitudinal axis of the body.---.

--7. (Amended) The tool claimed in claim 6 wherein the shearing elements each comprises a disc having a slot, [with a cutting edge] whereby the edges of (said slot) form (cutting edges) at one side of the disc, said slot extending from the outer periphery of the disc toward the center and narrowing toward the center, and [a handle attached to] each of said discs is provided with a handle.

REMARKS

This is responsive to the Office Action mailed 11/26/96. The following numbered paragraphs refer to the like-

numbered paragraphs commencing at page 2 of the Action. Claims 6-7 have been amended. Claims 1-5 and 8-11 stand withdrawn from further consideration.

3. The declaration was said to be defective because non-initialed alterations were made to the post office address of the second inventor. A new declaration signed by both inventors is enclosed.

4. The drawings were objected to, specifically, Figures 1a-1c, Figure 4 and Figure 5. Attached are copies of the indicated Figures, showing the proposed changes in red ink. It is believed that the proposed changes overcome the objections raised. Approval is requested.

5. The title has been amended as suggested, by deleting "Method And."

6. The disclosure was objected to on various grounds, referring to pages 4, 5 and 7. Appropriate amendments have been made to overcome the stated objections; however, it is not seen that the objection to page 5, lines 5-6, regarding the use of "6c" and "3c" is well-taken. The elements "6c" and "3c" are not referred to at those lines; accordingly, no amendments were made with respect to this aspect of the objection.

7. The specification was objected to under 35 U.S.C. § 112, first paragraph as failing to provide an adequate written description of the invention. The thrust of the objection was that it is not clear how the pieces of the body having a non-circular cross-section were being separated.

It is submitted that the specification clearly sets forth the nature of the separation being made and the meaning of the terms used in connection therewith. For example, the "Summary of the Invention" states:

"In accordance with the invention, the problem referred to is solved by cutting the plate or other body using torsion applied by means of a tool having an upper shearing part and a lower shearing part, each having a cutting edge in direct contact with one another and having means for rotating said parts about an axis coincidental with the axis of the body to be cut."

(Specification pp. 1-2, emphasis added)

The remainder of page 2 of the specification provides further description. Clearly, from this description, one of ordinary skill in the art would understand that the device separates the body being cut into two portions by "rotating" the shearing parts. This is illustrated also in Figs. 1a-1b. Fig. 1c is a partially exploded view of the device as shown in Fig. 1b, illustrating the separated parts of the body being cut, and illustrating a relative rotation of the parts of approximately 90°. See also, page 5, line 11 ("torsional cutting") and line 19 ("torsion separation"), for example.

To sum up, the application clearly discloses that the cutting is accomplished by the application of torsion on the plate or other body to be cut into two portions.

Claim Rejections - 35 U.S.C. § 112

8. Claims 6-7 were rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

9. Claims 6-7 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to these rejections, it is urged that both are overcome by the explanation provided above with respect to the specification and the amended claim language. No new matter has been added.

As now called for by amended claims 6-7, the tool has a lower shearing element and an upper shearing element, and each shearing element has an upper side and a lower side. The sides which contact one another (namely, the upper side of the lower shearing element and the lower side of the upper shearing element) have cutting edges (see, for example, element 6 in Figs. 1b and 1c). The rejections under Section 112, first and second paragraphs, have accordingly been overcome.

Claim Rejections - 35 U.S.C. § 102

11. Claim 6 was rejected under 35 U.S.C. § 102(b) as being anticipated by Stolpe (US 690,083), as follows:

"Stolpe discloses a cutting apparatus (e.g. in Figure 2) with every structural limitation of the claimed invention including an upper shearing element (connected to e'), a lower element (connected to f'), and a means (e.g. b, l', l'') for rotating the elements counter to one another."

12. Claims 6 and 7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Schweitzer (US 4,887,447), as follows:

"Schweitzer discloses a cutting apparatus with every structural limitation of the claimed invention including an upper shearing element in the form of a disc (78), a lower shearing element in the form of a disc (76), and means (including 10, 52, 54 and 28) for rotating the elements counter to one another, wherein each of the shearing elements has slot (96, 94) with a cutting edge which extends from the outer periphery toward the center and narrows toward the center, and a respective handle (88, 82) connected to each of the discs."

These rejections are traversed. The claims at issue have been amended to more clearly distinguish over the references applied. No new matter has been added.

As amended, the claims clarify that the device is a hand-held tool, not a large, cumbersome device to which the body to be cut must be brought. No new matter has been added, as this is clear from the drawings and the specification.

Furthermore, claims 6 and 7 call for the application of a torsional shearing force about the longitudinal axis of the body being cut with the force being applied in a plane which is transverse to the axis of the body being cut. No new matter has been added to the claims.

As amended the claims clearly distinguish over the Stolpe and Schweitzer references.

Stolpe discloses a shearing machine for profile-iron cutting. In Stolpe, Fig. 1 illustrates a device having knives h and k. One of these, knife k, is arranged stationarily in Fig. 1, unlike the device of the present claims. Stolpe's Fig. 6 device is said to have two rotatable knives. (See p. 1, lines 45-47 and 89-92.) In operation, a square-shaped iron rod is

inserted into Stolpe's device within the knives, a drive wheel q is revolved and arm g thereby depressed "while the knives are forced into the iron. By reversing the wheel the iron is withdrawn, and when tapped falls apart at the point of cutting." (Stolpe, p. 1, lines 81-84.)

Stolpe's device, therefore, is designed and operated so as to force the knives into the stationary iron rod being cut. The present claims, however, call for a hand-held tool having means which apply a torsional shearing force about the axis of the body, resulting in a portion of the body being twisted relative to the rest of the body. Stolpe's device does not operate in this way. It is urged that neither of claims 6 or 7 is unpatentable over Stolpe. Withdrawal of the rejection is appropriate.

Schweitzer discloses a rebar cutting and bending device. As this reference is understood, the rebar is placed into aligned grooves 94, 96 in discs 76, 78. By lowering handle 10, a horizontally acting force "F" is applied to the lower end 102 of a push bar, which causes one of the discs to pivot so as to offset the previously aligned grooves 94, 96. This process is repeated, eventually resulting in grooves 94, 96 being completely axially offset and completing the rebar cutting.

Again, this device is constructed and is operated much differently from that of the present claims. The present claims call for a hand-held tool having means which apply a torsional shearing force about the axis of the body, such that a portion of the body is twisted relative to the rest of the body. The "means

for rotating" applicants' shearing elements apply the torsional force about the longitudinal axis of the body. Schweitzer's device does not employ such a force. Rather, the discs rotate relatively about shaft 80, not about the axis of the rebar, as is the case in applicants' device. It is urged that neither of claims 6 or 7 is unpatentable over Schweitzer. Withdrawal of the rejection is appropriate.

Claim Rejection - 35 U.S.C. § 103

14. Claim 7 was rejected under 35 U.S.C. § 103 as being unpatentable over Stolpe in view of Schweitzer.

The rejection read as follows:

"Stolpe discloses a cutting apparatus (e.g. in Figure 2) with almost every structural limitation of the claimed invention including a handle (e', f') attached respectively to each shearing element but lacks each shearing element comprising a disc having a slot with a cutting edge extending from the outer periphery toward the center. Schweitzer discloses a cutting apparatus wherein the shearing elements each include a disc having a slot with a cutting edge as claimed wherein the slot narrows towards the center, and teaches that peripheral slots are provided for inserting lengths of rebar therein for cutting the rebar. Therefore, it would have been obvious to one having ordinary skill in the art to provide the discs of Schweitzer with slots therein on the cutting apparatus of Stolpe to gain the benefits taught by Schweitzer including that described above."

The rejection is respectfully traversed. First, it is not seen that there is any suggestion in either reference to combine the two references as set forth in the rejection. As has been noted above, the device of Stolpe provides a cutting action by moving knives into the iron being cut. Schweitzer's device, however, pivots one disc relative to another to move aligned

grooves 94, 96 into offset positions, thus cutting the rebar. It is not seen how the discs of Schweitzer's device would be used in Stolpe's device without further modification. There is no suggestion of any such modification and, indeed, since the devices operate so differently, it is not seen how the devices could be modified.

Furthermore, even if the substitution of Schweitzer's discs into Stolpe's device were made, the result would not have rendered the present claims obvious to one of ordinary skill in the art at the time the present invention was made.

Applicants are claiming a hand-held tool which, through the use of means for rotating the tool's shearing elements about the axis of the body to be cut, applies a torsional force in a plane transverse to the axis of the body and thus separates one portion of the body from the remainder.

Stolpe's device, however, drives a knife radially into the iron bar being cut, while Schweitzer's device does not rotate its discs about the axis of the rebar being cut. It is not seen, therefore, that the present claims would have been obvious to one of ordinary skill in the art. Withdrawal of the Section 103 rejection is urged.

15. The references cited but not applied are understood to be of no more relevance than Stolpe and Schweitzer.